Green Power Marketing Conference

Overview of U.S. Green Power Markets

November 3, 2003 • Chicago

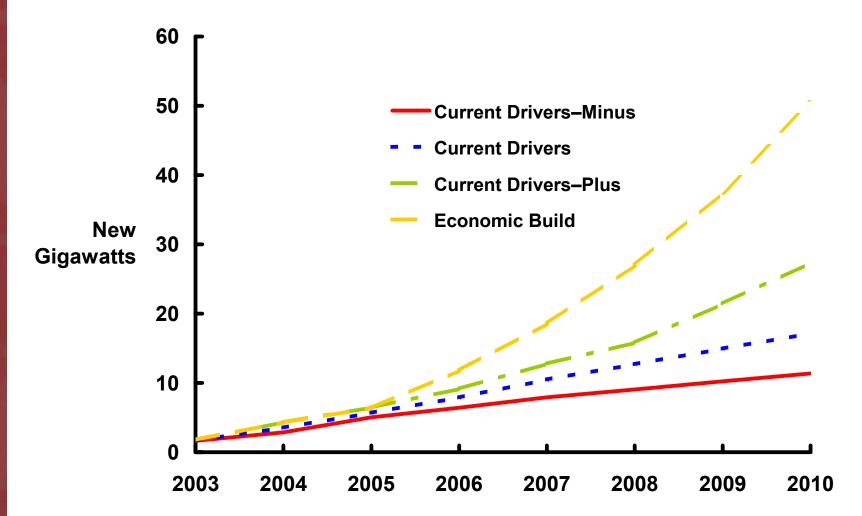


The Future of Green Power in North America: Key Points

- Renewable energy will experience rapid growth providing conditions are favorable
- Natural gas prices will drive the economics and politics of green power for the next decade
- Shifting economics of renewable generation will alter the landscape of green power marketing
- The future is (partly) in our hands

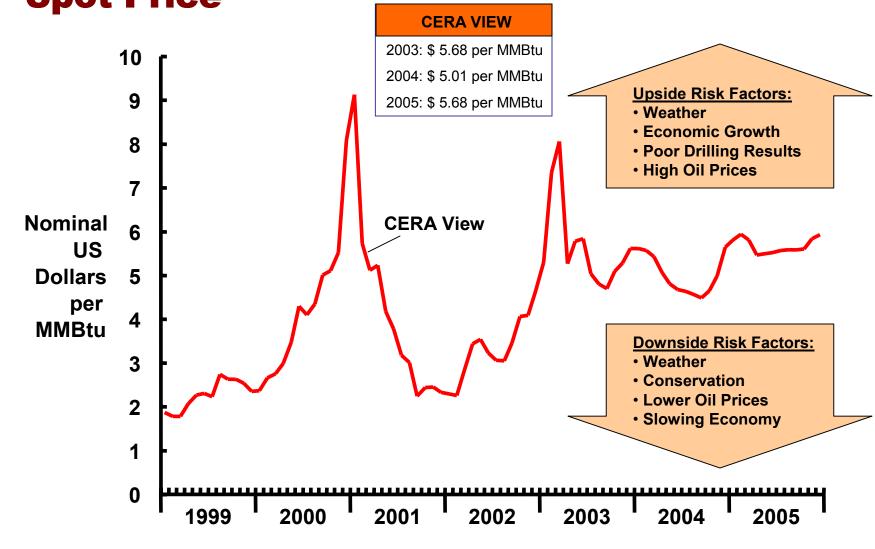


Potential Growth Paths for Renewable Energy in North America





1999–2005 Price Environment: Henry Hub Spot Price



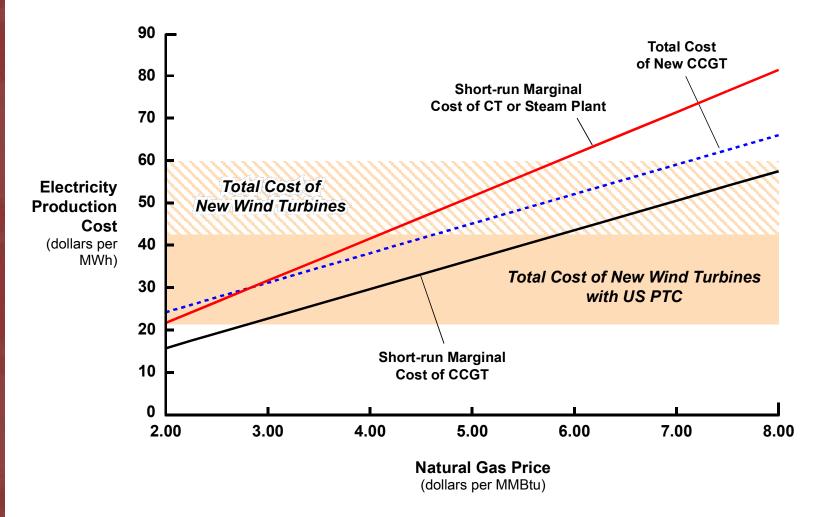


Effect of Gas Prices on Competitiveness of Renewable Energy

Energy Crops Direct Burn Offshore Wind (2003) **Wave Tapered Channel Landfill Gas Engine** CCGT (\$6 gas) Offshore Wind (2005) Offshore Wind (2010) Forest/Ag. Residue CCGT (\$4.5 gas) **Nuclear PWR** Geothermal CCGT (\$3 gas) **Onshore Wind (2003)** Renewable Coal **Nonrenewable Onshore Wind (2005)** Gas CCGT (\$2 gas) **Onshore Wind (2010)** 10% Biomass Cofiring in Coal Plant **Hydro Uprate** 20 40 60 80 100 120 140 160 **Dollars per MWh**



Will Wind Beat Gas?





Source: Cambridge Energy Research Associates. Note: Assumes that the 1.8 cents per kWh PTC is completely monetized. 30717-13

If you have any questions about this presentation or CERA in general, please feel free to contact

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